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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,645	10/31/2003	Matthew Murray Williamson	1509-459	8484

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
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2134

MAIL DATE	DELIVERY MODE
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08/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/697,645	Applicant(s) WILLIAMSON ET AL.	
	Examiner Matthew Heneghan	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the previous office action, Applicant has amended claims 1, 4, 7, 10, 11, 14, 15, 19, and 21; cancelled claims 6 and 16; and added claims 22 and 23.

Claims 1-5, 7-15, and 17-23 have been examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-15, 17-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,789,203 to Belissent.

As per claims 1, 5, 9, 12-14, 16-19, and 23, Belissent discloses a throttling mechanism in which requests, such as email requests, are received by an SMTP server in communication with one or more clients, and the number of requests is compared to a threshold value (see column 5, lines 36-61). If the threshold is exceeded for a particular throttling interval, the throttler takes a retaliatory action against the traffic (see column 4, lines 9-32 and 50-60). In response to a connection that is received at the beginning of a subsequent interval, parameters for these thresholds may be

recalculated, such that the threshold may increase for the new interval in view of no connections having been received in the previous one, leading to an increase in the number of connections that may be may before reaching the threshold.

The number of connections before the threshold is reached is the “parameter.” Bellisent tests whether this threshold has been reached by starting a counter at the threshold’s value and counting down to 0, rather than by increasing the counter until the threshold is reached; however, it is well-known in the art to test an accumulated statistic by counting up rather than counting down, as the algorithms are equally fast and have the same effect (see column 6, line 18 to column 7, line 16).

Therefore it would have been obvious at the time the invention was made to have the threshold counter count up from zero to a threshold, rather than down from the threshold to zero.

Since the request may be handled by an SMTP server, the invention must encompass individual multiple-recipient emails, with each email sent to a recipient being a connection (see column 4, lines 50-60).

As per claims 2, 15, and 20, Bellisent discloses the delaying of connections once the threshold is exceeded. The memory in which such requests are stored becomes a delay buffer (see column 6, lines 18-40).

As per claims 3 and 21, a recalculation of the wait time at the beginning of a new interval may lead to the release of delayed requests (see column 6, line 57 to column 7, line 5).

Regarding claim 4, no throttling is applied and therefore all requests are transmitted when the number of requests has not exceeded the threshold (see column 6, line 22-26).

Regarding claim 7, requests are automatically slowed down in the next time interval (i.e. the parameter is zero) if the threshold is exceeded in the current time interval (see column 6, lines 26-30). This includes the scenario where the request was sent to all destination hosts.

Regarding claim 8, in the event that the rejection rate has been exceeded by the email connections, connections in excess of the threshold may simply be rejected (see column 6, lines 11-14).

Regarding claim 10, Bellisent does not specifically state that a message having multiple destinations be delayed until the number of destinations is not above the threshold.

Official notice is given that it is well-known in the art to block a computer operation until all of the resources necessary for the operation are available at the same time.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to delay a multi-destination email until it is possible to transmit to all destinations at once in Bellisent, in view of the throttle. This modification would lead to the waiting until the parameter was equal to the number of destination hosts.

Regarding claim 11, the setting of the rejection rate is a policy consideration.

3. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,789,203 to Bellisent in view of Williamson, "Throttling viruses: restricting propagation to defeat malicious mobile code," Proceedings of the 18th Annual Computer Security Applications Conference, December, 2002.

Bellisent does not disclose the triggering of a virus alert in the event that the delay buffer grows beyond a certain size.

Williamson discloses the monitoring of the rate of increase of the size of the delay queue, along with the issuing of an alert in the event of a threshold being exceeded, in order to stop the spreading of viruses and allow the user to determine whether it is a real problem (see section 5, second paragraph).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Bellisent by monitoring of the rate of increase of the size of the delay queue, along with the issuing of an alert in the event of a threshold being exceeded, in order to stop the spreading of viruses and allow the user to determine whether it is a real problem.

Response to Arguments

4. In response to applicant's argument that Bellisent is designed to counter DOS attacks, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is

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capable of performing the intended use, then it meets the claim. Moreover, Bellisent discloses deployment is a distributed environment, and multi-computer applications are therefore not precluded in any way.

Regarding Applicant's argument that Bellisent only throttles incoming traffic, it is noted that Bellisent uses an SMTP server, which forwards email; there is therefore both incoming and outgoing traffic being treated.

Regarding Applicant's argument that Bellisent lacks a comparison, the testing of any stored value requires a comparison of some sort, whether it be against a predetermined number or just against the number zero.

5. Applicant's arguments, see Remarks, filed 3 July 2007, pp. 10-11, with respect to the rejection(s) of claim(s) 1 et al. under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the same art under 35 U.S.C. 102. Applicant has persuasively argued that the parameter is not inherent; however, the counting down of a parameter from a setting to zero and the counting up of a parameter from zero to the same setting are obvious variations of one another and the grounds of rejection have been modified appropriately. This office action is therefore non-final.

Conclusion

6. The newly cited reference, Williamson, "Throttling viruses: restricting propagation to defeat malicious mobile code," Proceedings of the 18th Annual Computer Security Applications Conference, December, 2002, qualifies as prior art under 35 U.S.C. 102(a) because only one of the inventors of the invention of the instant application authored the paper; therefore, it has a different inventive entity. There is also confusion on the part of the Office as to the date on which this paper was publicly disclosed in 2002; in the event that Applicant elects to overcome the reference by filing a submission under 37 CFR 1.132 to establish inventorship, Applicant shall be further required to disclose the date of this publication; in the event that the publication were disclosed prior to 31 October 2002, it would also become prior art under 35 U.S.C. 102(b).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand, can be reached at (571) 272-3811.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Matthew Heneghan/

August 15, 2007

Patent Examiner (FSA), USPTO Art Unit 2134